



## FIRST NATIONS SMALL WATER SYSTEMS CERTIFICATION PROGRAM

### COMPUTER BASED EXPERIENTIAL TRAINING CAPACITY

Briefing to First Nations Information Technology Conference  
February 22, 2008

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### Program Objectives

1. To provide Operator Certification training in a manner consistent with First Nations traditional learning culture
2. To provide an on-site, first-line support tool to the Systems Operator, thereby reducing the costs for off-site support
3. To provide a future framework for computer based training
4. To build the First Nation capacity to develop further programming and training for community operations, education, health and technology

## Requirements Study Objectives

1. To analyze existing instructional programs (MTS & TRU) in terms of content, design, materials, and delivery
2. To determine the requirements to meet Operator Certification
3. To determine the requirements for safe and efficient Operations
4. To identify the most effective instructional methodologies for First Nations operators
5. To determine requirements for an Intern program to create CBT development capacity within the First Nations' community
6. To provide recommendations, schedule and pricing for Phase 2 – Detailed Design

## Study Methodology

- ◆ Interviewed stakeholders
- ◆ Reviewed existing course material
- ◆ Conducted Site Visit
- ◆ Examined Provincial certification requirements
- ◆ Assessed international criteria for Small System Operators
- ◆ Analyzed Certification Exam results



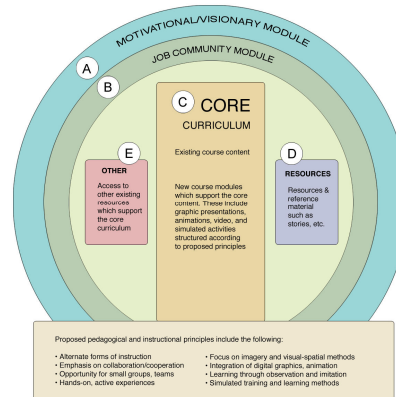
## Key Recommendations

- ◆ Develop Experienced-Based Learning (EBL) material (*Liftoff Demo*) consistent with Aboriginal learning principals
- ◆ Use multiple sensory interactive instruction
- ◆ Provide on-going support modules for reference and assistance in day-to-day operations
- ◆ Develop a standard Framework and standard user interface for further Aboriginal learning
- ◆ Emphasize issues of reading comprehension and mathematical literacy
- ◆ Select 6 First Nation Interns to work with multimedia professionals to develop capacity within the community

## Phase 2 – Detailed Design Deliverables

- ◆ Detailed review of all available course material / perform “make vs buy” analysis
- ◆ Design of a Standardized Framework for First Nations Computer Based Training
- ◆ Detailed design of 3 Options for Development Phase with Best Value and Budget Availability analysis
- ◆ Operational prototype of key training component
- ◆ Selection of First Nation Interns for work Prototype and Phase 3 Development & Implementation

## Standard Framework



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## Sample Job Description: First Nations Intern – 3D Modeling

### **Position Description:**

First Nations Education Steering Committee, in association with MDA Corporation - one of Canada's leading information companies, is producing a Computer Based Training program for First Nations Water System Operators.

As part of this program, we are looking for motivated and creative individuals interested in working along side industry professions to learn the skill sets required for careers in Multimedia Production. As a 3D modeler, you will be part of a close-knit team of other First Nations Interns working under the direction of multimedia professionals to develop this valuable training program for Small Water System Operators.

### **Responsibilities:**

- Required to work closely with a professional 3D modeler to create computer based 3D models to train and assist First Nation Water Systems Operators in an innovative computer-learning environment.
- To develop the 3D Modeler and computer skills for a career in Multimedia Production

### **Requirements (experience/skills):**

- Working knowledge of computers and/or some background in animation, graphic design, programming or Web development desirable.
- Some knowledge or previous experience with applications such as 3DS Max, Lightwave, Maya or other 3D modeling programs would be an asset.
- Other web-based and multimedia skills an asset
- Ability to work in a team environment
- Strong desire for a career in Multimedia
- Preference given to individuals of First Nations Descent

**Location:** Richmond BC

**Duration:** 4-6 months starting early in 2008

**Payment:** Daily Intern Rate plus accommodation

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## Key Benefits

- ◆ Help ensure the safe and effective delivery of potable water to the communities
- ◆ Reduce the cost of Training by increasing first time pass rate
- ◆ Reduce the cost of Operation by providing online day-to-day reference and assistance to reduce off-site support
- ◆ Provide a future framework for further computer based education and training
- ◆ Develop Multimedia CBT capacity within the First Nations community

## Experience-Based Learning Demo

- ◆ Process:
  - Motivation
  - Theory or Facts
  - Application for task
  - Training on task
  - Experience simulation (with problem solving)
  - Community Links
- ◆ Multi-sensory Learning
  - Textual
  - Visual
  - Audio
  - Simulated Hands-on